Amendments to the drawings

Applicant submits a replaced sheet of Fig. 7, which is designated with a legend of "Prior Art" that eliminates the drawing problem noted in the Office Action.

Attachment: Replacement Sheet 1 page

REMARKS

The Examiner is thanked for the careful review of this application. Applicants have thoroughly reviewed the outstanding Office Action including the references cited therein. The following remarks are believed to be fully responsive to the Office Action and to render all claims at issue patentably distinguishable over cited reference.

Drawings

The Figure 7 should be designated by a legend such as --Prior Art--because only that which is old is illustrated. In response thereto, Applicant submits a substitute sheet of Fig. 7 to replace the original sheet.

Specification

The abstract of the disclosure is objected to because ""rack on" process" should be --"track on" process. Further, the disclosure is objected to because of the following informalities: all instances of "t"rack on"" should be --"track on"-- and "O"n track"" should be -- "On track"--. Additionally, all instance of missing spaces should be corrected. In response thereto, Applicant provides a substitute specification to replace the original specification. This substitute specification is attached hereto at Tab A. And, an annotated version of the substitute specification (which annotates the changes made) is attached hereto at Tab B.

Claim Objections

Claim 2 and 6 were objected to because "a "On track" signal" should be --"an "On track" signal". Additionally, the structure in these claims is grammatically awkward. The examiner suggests that "when control of the pickup head is switched" should be changed to --wherein the switching control of the pickup head--, or equivalent". Claims 2-4 and 6-8 were objected to because the phrase "The method of claim X" should be -- The method of claim X,--. In response thereto, Applicant has made amendments to this

claim according to the suggestions of Examiner, and this claim (as well as the other claims) are printed in the listing of claims to avoid the problems noted in the Office Action.

Claim Rejection – 35 U.S.C. Section 102

Rejection of claims 1-4 based on 35 USC 102 (b)

Claims 1-4 were rejected under 35 U.S.C.102 (b) as being anticipated by Masaki et al (hereafter Maskai) (US patent 5,481,510). As will be fully described in the following, the cited references does not anticipate the claimed invention. Accordingly, the rejections are respectfully traversed for at least the reasons set forth below.

Independent claim 1 is directed to a method for processing error control for a seeking servo of an optical disk drive. As described in the specification and claim, ***the pickup head will be moved to the center of a movable range*** when the "track on" process is not completed in a predetermined time and then ***control of the pickup head will be switched to the tracking servo system again***. As known in the art, there are different kinds of disk drives including optical disk drives for accessing optical disks, such as CDs or DVDs, and magneto-optical disk drive for accessing MO disks. Different kinds of disk drives have different kinds of pickup heads. As described in the specification, the pickup head with a movable range is located on the sledge, and the sledge is capable of been driven in another movable range for long seek process. As known in the art, the another movable range of the sledge is about the disk radius (6cm), and the movable range of the pickup head is about only 50 track widths (1mm). Furthermore, the assembled elastic members on the sledge is to move the pickup head to the center of the movable range when the pickup head is not being controlled, and the sledge do not have this kind of elastic members, and it will stop moving and stay at the stop position when the sledge is not been controlled. However, pickup head of the magneto-optical disk drive does not have the elastic member to move the pickup head to the center of the movable range when the pickup head is not being controlled.

The cited reference of US 5,481,510 discloses a seek control system for magneto-optical disk drive (optical storage apparatus). As described in the Fig 1 and column 5 lines 9-24 of the US 5,481,510, this kind of pickup head includes a movable part comprising a positioner 12, a movable head 10b, and a VCM coil 11b. And, ***a movable range, which is approximately equal to the radius of the MO disk (1.5 inches), between an inner stopper 13 and an outer stopper 14 for the movable part to move radially, and the center of the movable range is approximate at center of the disk radius.*** Furthermore, the driving force of the movable part is driven by the voice coil motor 11, which combines the VCM coil 11b and VCM magnet 11a. That is to say, the cited movable part is acted as the sledge of the optical disk drive.

The Office Action alleged the paragraph in the cited reference column 13 lines 31-36 suggests that when such a retry of turning on the track servo is carried out, the position control of the optical head 10 by the positioner 12 is temporarily suspended and the positioner 12 may be moved by the offset of the circuit or tension of the positioner cable at this time. However, the statement of " moved by the offset of the circuit or tension of the positioner cable" does not mean to move the movable part to the center of the movable range and it makes no sense to move to the center of the movable range whenever a retry is issued. For example, if a retry is issued at the target track near the inner stopper 13 or the outer stopper 14 of the movable range, it is impossible to move the movable part to the center of the disk radius and turn on the track servo at the center of the disk radius because the track position at the center of the disk radius is far from the target track and the track position is a wrong track, certainly. That is to say, the offset of the circuit or tension of the positioner cable is not provided to move the movable part to the resting position stated by examiner. In fact, the offset of the circuit or tension of the positioner cable is provided to maintain the movable part to stay at the original position it stop and then the track servo is turned on again. Also, paragraph in cited reference column 10 lines 34-36 discloses a position error signal becomes zero when the positioner has been positioned at the target position (target track). Obviously,

this cited target track seeking method by using position error signal is different from Applicant's seeking method by counting TE signal. Also, the cited position error signal is irrelevant to the to position cable and Applicants does not understand why examiner interprets that the paragraph discloses the features of moving the pickup head to the center of movable range by natural damping.

For at least these reasons, independent claim 1 patently defines over the cited art and should be allowed. Dependent claims 2-4 each depend from independent claim 1 also define over the cited art for at least the same reasons.

Rejection of claims 5-7 based on 35 USC 102 (b)

Claims 5-7 were rejected under 35 U.S.C.102 (b) as being anticipated by Ikeda (US patent 5,870356). As will be fully described in the following, the cited references does not anticipate the claimed invention. Accordingly, the rejections are respectfully traversed for at least the reasons set forth below.

Independent claim 5 is directed to a method for processing error control for a seeking servo of an optical disk drive. As described in the claim, ***the center error signal has to be monitored only right after the control of pickup head is switched from a seeking servo system to a tracking servo system***; and move the pickup head to the center of a movable range ***when the center error signal exceeds a predetermined value***; and then switch the control of the pickup head to the tracking servo system.

The cited reference of US 5,870,356 discloses an optical storage apparatus (magneto-optical disk drive) which detects a lens position signal without a lens position sensor.

The Office Action alleged the paragraph in the cited reference column 2 lines 5-8 suggests that the lens position signal is used to prevent optical axial deviation of an objective lens which occurs when the objective lens is moved from a neutral position and ***during the seek of a carriage***. This cited paragraph only teaches to keep the lens always at the neutral position by the lens position signal during seeking. As known in

the art, "during seek of a carriage" is only carried out by the seeking servo system, and ***there is not any statement in the paragraph teaching the switching control from the seeking servo system to the tracking servo system.*** Moreover, The Office Action alleged the paragraph in the cited reference column 2 lines 8-11 suggests that it is necessary to perform a lens lock control for positioning the lens actuator so as to keep the optical axial deviation of the objective lens to zero. However, statements in this paragraph are also in the seeking procedure. ***There is not any statement in the paragraph teaching moving pickup head to the center of a movable range when the pickup head is not controlled by the seeking servo system and the center error signal exceeds a predetermined vale.***

For at least these reasons, independent claim 5 patently defines over the cited art and should be allowed. Dependent claims 6-7 each depend from independent claim 5 also define over the cited art for at least the same reasons.

Claim Rejections – 35 U.S.C. Section 103

Rejection of claim 8 based on 35 USC 103 (a)

Claims 8 was rejected under 35 U.S.C.103 (a) as being unpatentable over Ikeda, in view of the Applicant's admitted prior art (AAPA).

However, dependent claims 8, which ultimately depends from independent claims 5, is likewise patentable over the cited references for at least the same reasons set forth above with respect to claim 5.

CONCLUSION

In light of the above amendments and remarks, Applicant respectfully submits that all claims 1-8 as currently presented are in condition for allowance and hereby requests reconsideration and allowance of these claims.

Sincerely yours,

/Winston Hsu/ Date: July 3, 2006

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)